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(71) Applicants *(for all designated States except US)*: **INFINEON TECHNOLOGIES SC300 GMBH & CO. KG** [DE/DE]; Königsbrücker Str. 180, 01099 Dresden (DE). **ASML** [US/US]; 440 Kings Village Rd., Scotts Valley, CA 95066 (US).

(72) Inventors; and

(75) Inventors/Applicants *(for US only)*: **BERNHARDT, Henry** [DE/DE]; Neuländer Str. 13, 01129 Dresden (DE). **SEIDEMANN, Thomas** [DE/DE]; Moenchsholz 14, 01324 Dresden (DE). **STADTMUELLER, Michael** [DE/DE]; Annette-Kolbanger 13, 81737 München (DE).

(74) Agent: **EPPING HERMANN & FISCHER**; Ridlerstr. 55, 80339 München (DE).

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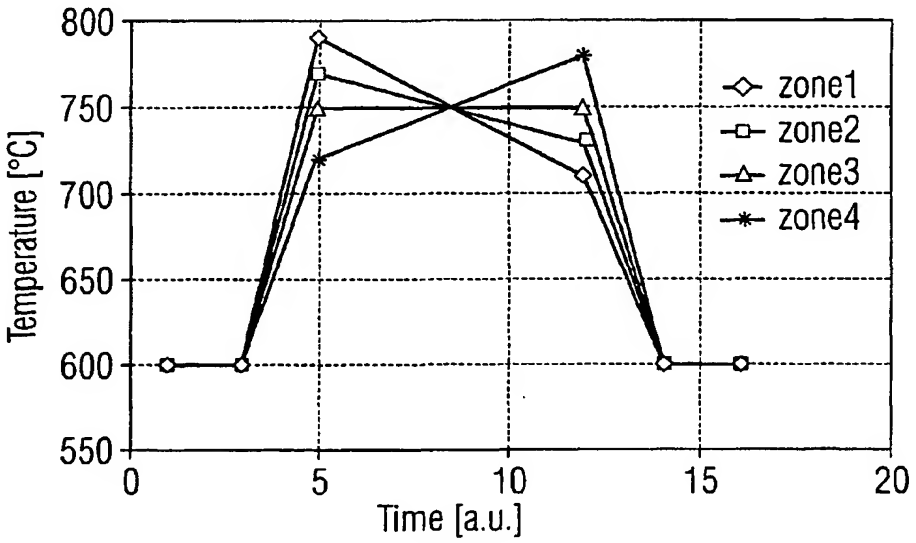
(54) Title: HEATING SYSTEM AND METHOD FOR HEATING AN ATMOSPHERIC REACTOR



(57) Abstract: The present invention provides a heating system for heating a deposition/oxidation reactor in which a plurality of wafers is held perpendicularly to the reactant gas flowing direction which is parallel to the longitudinal axis of the reactor, so as to enable a deposition or oxidation reaction. The heating system is adapted to change the reactor temperature during the process. Further, the invention provides a method for heating a reactor in which a plurality of wafers is held perpendicularly to the reactant gas flowing direction, so as to enable a reaction, wherein the reactor temperature is changed during the process. Prefereably, each of a plurality of reactor zones, into which the reactor is divided in a direction parallel to the reactant gas flowing direction, is heated at a different temperature profile.

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